

**DIMMABLE BALLAST WITH RESISTIVE INPUT AND
LOW ELECTROMAGNETIC INTERFERENCE**

ABSTRACT

5 An AC to AC power conversion apparatus with constant power feeding characteristics to fluorescent lamp or HID lamp is described. The constant power characteristic is achieved by discontinuous mode operation of capacitor coupled in series with the load. Packets of energy are pumped out to the load in each switching cycle, regardless of the resonant characteristics. The dependence of the input power on the square of the supply voltage make

10 the input resistive and produces good power factor automatically. The lamp load is dimmable by external phase control dimmer like resistive incandescent lamps. Multiple lamp loads with different power rating can be integrated by adding more sets of said capacitors and associated components.